

REMARKS

Claims 1-83 are pending in the application. Claims 27- 41, 64- 75 and 81-86 have been withdrawn. Claims 1-26, 42-63 and 76-80 have been allowed.

In the present document, independent claims 1, 42 and 76 have been amended to specify that the enhancement of polarization corresponds to a hyperpolarized state beyond that attainable for any atomic nucleus at thermal equilibrium in the applied magnetic field. The concept of hyperpolarization is generally discussed in paragraphs [0015] – [0017] of the published application. Attention of the Examiner is specifically drawn to Fig. 5 of the application and the related discussion of the Overhauser effect in [0058]. As discussed therein, this results in a high polarization in excess of the thermal equilibrium. It is well known that ¹H has one of the highest polarizations at thermal equilibrium of any known nuclei, exceeded only by its isotope ³H. The Overhauser effect results in polarization in excess of this known maximum. Applicant further notes that the Nuclear Overhauser effect discussed in *An* only increases the polarization beyond that of the thermal equilibrium value for ¹³C.

Claim 19 has been amended to clarify the claim language and has not been narrowed in any way.

Claim 25 has been amended to clarify the claim language and has not been narrowed in any way,

Claim 59 has been amended to correct a typographic error.

Claim 76 has also been amended to clarify the claim language.

Claim 77 has been amended to make its language consistent with that of amended claim 76.

Reconsideration of the application as amended is respectfully requested. No fee is believed to be due for these amendments. The Commissioner is hereby authorized to charge any additional fees, or credit any overpayment to Deposit Account No. 02-0429 (584-35879-USCP).

Respectfully submitted,



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